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10/779,510	02/13/2004	Eric H. Carter	MS306138.01 / MSFTP551US	8913

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EXAMINER
VERDI, KIMBLEANN C

ART UNIT	PAPER NUMBER
2194	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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	Application No.	**Applicant(s)**
Office Action Summary	10/779,510	CARTER ET AL.
	Examiner	**Art Unit**	
	KimbleAnn Verdi	2194	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>24 June 2008</u>.

2a)☒ This action is **FINAL.** 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-12 and 14-37</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-12 and 14-37</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>24 June 2008 and 13 February 2004</u> is/are: a)☒ accepted or b)☐ objected to by the
Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

This office action is in response to the Application filed on February 13, 2004. Claims 1-
12 and 14-37 are pending in the current application.

Claim Objections

1.   Claims 8, 12, 14, 18, 21 and 24 are objected to because of the following

informalities:

        a.   Claim 8, line 2, the recitation of "a host application", should be "the host

        application;

        b.   Claim 12, line 2 the recitation of "the host API should be "the API of the

        host application";

        c.   Claim 14, line 4, claim 18, line 5, and claim 24, line 3, the recitation of

        "API" should be "application programming interface (API)";

        d.   Claim 18, line 8, the recitation of "the API", should be " the API of the host

        application";

        e.   Claim 21, line 2 the recitation of "the API", should be "the API of the host

        application".

        f.   Appropriate correction is required.

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

        The specification shall contain a written description of the invention, and of the manner and process of
        making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

art to which it pertains, or with which it is most nearly connected, to make and use the same and shall
set forth the best mode contemplated by the inventor of carrying out his invention.

3. **Claims 1-13 and 14-37 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.**

4. Claims 1, 14, 18, 24, 31, and 37 the recitation of "not native" contains a negative limitation which does not have basis in the original disclosure. Thorough review of the specification by the Examiner did not result in finding of the subject matter properly disclosed in the specification.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly
claiming the subject matter which the applicant regards as his invention.

6. **Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

7. Claim 14 recites the limitation "the storage media" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 101

8.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9.   Claims 24-30 are rejected under 35 U.S.C. 101 because the claimed

invention is directed to non-statutory subject matter.

10.   Claims 24-30 are directed to a process (method), however, the process does not

include a physical structure and are not tied to another statutory class, as such the

claims are not directed to statutory subject matter.

In contrast, a "computer implemented method" is a process claim with defined

structural and functional interrelationships and tied to machine statutory class and

therefore directed to statutory subject matter.

Appropriate correction or amendment is required.

Claim Rejections - 35 USC § 103

11.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12.   **Claims 1-7, 12, 14-18, 21-22, 24-29, 31-34, and 37 are rejected under 35**

U.S.C. 103(a) as being unpatentable over Fry et al. (hereinafter Fry) (U.S.

Publication No. 2003/0163603 A1) in view of White et al. (hereinafter White) (U.S.

Patent 7,370,335 B1).

13.   Fry cited in previous Office Action.

14.   As to claim 1, Fry teaches the invention substantially as claimed including a

system embodied on a computer-readable storage medium that facilitates extending the

functionality of an application, comprising:

        a schema component (paragraph [0020]) that includes a schema element

(paragraph [0020]) representative of domain terminology of a problem to be solved in a

host application (e.g. any defined schema is representative of domain terminology of a

problem to be solved (paragraph [0020]).

        a mapping component (paragraph [0022]) that maps the schema element to a

construct of an API of the host application (paragraphs [0020] and [0030]).

15.   Fry does not explicitly disclose the domain terminology is not native to a general

application programming interface (API) of the host application; and

         a mapping component which enables the host application to operate on the

domain terminology.

16.   However White teaches the domain terminology is not native to a general

application programming interface (API) of the host application (col. 7, lines 9-11 and

15-22); and

        a mapping component (i.e. adapter layer, col. 5, lines 1-2 and 8-1, and col.

7,lines 9-11) which enables the host application to operate on the domain terminology

(col. 7, lines 22-24, col. 8, lines 20-24, and col. 24, lines 12-22).

17.   It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to have modified data binding framework of Fry with the teachings

of an adapter layer from White because this feature would have provided a mechanism

to map vendor-specific APIs to a standardized API (col. 5, lines 21-25 of White).

18.   As to claim 2, Fry teaches the API is associated with at least one of a word

processing application, spreadsheet application, drawing application, presentation

graphics application, website design and development application, database

application, project management application, publication application, note management

application and, browser and communication application (paragraphs [0022] and

[0023]).

19.   As to claim 3, Fry teaches the schema component (paragraph [0020]) facilitates

generation of at least one of a data programming model (paragraph [0029]) and a view

programming model (paragraphs [0020], [0030], and [0043]).

20.   As to claim 4, Fry teaches a generation component (paragraph [0022]) that generates at least one of a data programming model (paragraph [0029]) and a view programming model (paragraphs [0020], [0030], [0029] and [0043]).

21.   As to claim 5, Fry as modified by White teaches a generation component (paragraph [0022] of Fry) that generates a data programming model and a view programming model (paragraphs [0029] and [0043] of Fry) that are automatically connected to each other via data binding (paragraphs [0033]-[0035] of Fry), the view programming model provides an interface by which the host application operates on the domain terminology (col. 7, lines 22-24, col. 8, lines 20-24, and col. 24, lines 12-22 of White).

22.   As to claim 6, Fry teaches a generation component (paragraph [0022]) that generates at least one of a data programming model (paragraph [0029]) and a view programming model (paragraphs [0020] and [0030]), wherein the data programming model interfaces to the host API via the view programming model (paragraphs [0041]-[0043]).

23.   As to claim 7, Fry teaches a separation component (paragraph [0027]) that separates data from document content (paragraph [0027]).

24.   As to claim 12, Fry as modified by White teaches the schema component

(paragraph [0020] of Fry) and the mapping component (paragraph [0022] of Fry)

facilitate generation of a new API that interfaces to the host API (paragraphs [0030] and

[0043]-[0044] of Fry) and enables the host application to operate on the domain

terminology (col. 7, lines 22-24, col. 8, lines 20-24, and col. 24, lines 12-22 of White).

25.   As to claim 14, Fry teaches the invention substantially as claimed including a

computer comprising:

        a schema component (paragraph [0020]) that includes a schema element

(paragraph [0020]) representative of domain terminology of a problem to be solved in a

host application stored at the storage medium (e.g. any defined schema is

representative of domain terminology of a problem to be solved (paragraph [0020]).

        a mapping component (paragraph [0022]) that maps the schema element to a

construct of an API of the host application (paragraphs [0020] and [0030]).

26.   Fry does not explicitly disclose the domain terminology is not part of a native API

of the host application;

         a mapping component which enables the host application to operate on the

domain terminology; and

        processing hardware to execute instructions associated with the schema

mapping component.

27.   However White teaches the domain terminology is not native to a general
application programming interface (API) of the host application (col. 7, lines 9-11 and
15-22); and

        a mapping component (i.e. adapter layer, col. 5, lines 1-2 and 8-1, and col.
7, lines 9-11) which enables the host application to operate on the domain terminology
(col. 7, lines 22-24, col. 8, lines 20-24, and col. 24, lines 12-22); and

        processing hardware to execute instructions associated with the schema
mapping component (col. 25, lines 12-34).

28.   It would have been obvious to a person of ordinary skill in the art at the time the
invention was made to have modified data binding framework of Fry with the teachings
of an adapter layer from White because this feature would have provided a mechanism
to map vendor-specific APIs to a standardized API (col. 5, lines 21-25 of White).

29.   As to claim 15, Fry teaches the schema component (paragraph [0020]) includes
a view schema (paragraph [0043]) that represents only data of interest of a host
application (paragraph [0020]).

30.   As to claim 16, Fry teaches the schema component (paragraph [0020]) includes
a view schema (paragraph [0043]) that facilitates pulling a plurality of objects of interest
from a plurality APIs of the host application(paragraph [0044]).

31.   As to claim 17, Fry teaches at least one of the schema component (paragraph

[0020]) and the mapping component (paragraph [0022]) facilitate generation of a view

API (paragraphs [0043]-[0044]) that is a hybrid of view schema (paragraph [0043]) and

the API of the host application (paragraphs [0043]-[0044]).

32.   As to claim 18, Fry teaches the invention substantially as claimed including a

system embodied on a computer-readable storage medium that facilitates extending the

functionality of an application, comprising:

        a schema component (paragraph [0020]) that includes a schema in terms of a

problem to be solved in a host application (e.g. any defined schema is representative of

domain terminology of a problem to be solved (paragraph [0020]) and a mapping of the

terms to generic objects of an API of the host application (paragraphs [0020] and

[0030]); and

        a generation component (paragraph [0022]) that generates at least one

programming model based on the schema that interfaces to the API (paragraphs [0020]

and [0030]).

33.   Fry does not explicitly disclose the terms are not native to the host application.

34.   However White teaches the terms are not native to the host application (col. 7,

lines 9-11 and 15-22).

35.   It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to have modified data binding framework of Fry with the teachings

of an adapter layer from White because this feature would have provided a mechanism

to map vendor-specific APIs to a standardized API (col. 5, lines 21-25 of White).

36.   As to claim 21, Fry teaches the system of claim 18, the schema component

facilitates generation of a new API that interfaces to the API (paragraphs [0030] and

[0043]-[0044]).

37.   As to claim 22, Fry teaches the schema component facilitates manipulation of a

variable without reference to underlying register and stack allocations (paragraph

[0044]).

38.   As to claim 24, Fry teaches the invention substantially as claimed including a

method of extending the functionality of an application, comprising:

        creating a schema of problem domain elements of a problem to be solved

(paragraph [0020]);

        mapping the problem domain elements to constructs interpretable by one or

more generic application interfaces of the application (paragraphs [0020] and [0030]);

and

        generating a program model based on the mapping of the problem domain

elements (paragraphs [0020] and [0030]) such that the one or more generic application

interfaces can be accessed via the program model using the problem domain elements

(paragraphs [0020] and [0030]).

39.   Fry does not explicitly disclose the domain elements are not native to a an API of

the application.

40.   However White teaches the domain elements are not native to an API of the

application (col. 7, lines 9-11 and 15-22).

41.   It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to have modified data binding framework of Fry with the teachings

of an adapter layer from White because this feature would have provided a mechanism

to map vendor-specific APIs to a standardized API (col. 5, lines 21-25 of White).

42.   As to claim 25, Fry teaches automatically separating the program model into a

data model (paragraph [0029]) and a view model (paragraph [0043]).

43.   As to claim 26, Fry teaches exposing data of the problem domain elements as

named objects in a view model (paragraphs [0041]-[0043]).

44.   As to claim 27, Fry teaches exposing data of the problem domain elements as

declarations in a data model (paragraphs [0020], [0030], [0029]).

45.   As to claim 28, Fry teaches the program model is a schema-based, machine generated model (paragraphs [0020] and [0030]).

46.   As to claim 29, Fry teaches exposing data of the problem domain elements as first class named objects (paragraph [0044]).

47.   As to claim 31, Fry teaches a computer-readable storage medium having stored thereon computer-executable instructions for performing a method for extending the functionality of an application, comprising:

        creating a mapping of a schema to one or more generic application interfaces of the application (paragraph [0030]);

        generating a view model from the mapped schema (paragraph [0043]), the view model includes view data that is mapped to objects of the application (paragraph [0043]); and

        generating a data model from the mapped schema (paragraph [0029]), the data model including data that is mapped to objects of the application (paragraphs [0029] and [0043]).

48.   Fry does not explicitly disclose the view data is not native to the generic application interfaces of the application.

49.   However White teaches the view data is not native to the generic application

interfaces of the application (col. 7, lines 9-11 and 15-22).

50.   It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to have modified data binding framework of Fry with the teachings

of an adapter layer from White because this feature would have provided a mechanism

to map vendor-specific APIs to a standardized API (col. 5, lines 21-25 of White).

51.   As to claim 32, Fry teaches data binding the view model to the data model

(paragraphs [0033]-[0035]).

52.   As to claim 33, Fry teaches the view model uses portions of the schema that are

mapped to problem domain terms related to a problem to be solved (paragraphs [0020],

[0029] and [0043]).

53.   As to claim 34, Fry teaches extracting the view data that is mapped to objects of

the applications and exposing the view data as view controls (paragraphs [0020], [0029]

and [0043]).

54.   As to claim 37,Fry teaches the invention substantially as claimed including a

system that facilitates extending the functionality of an application comprising:

means for creating a mapping of a schema to one or more generic application interfaces of the application (paragraph [0030]);

means for generating a view model from the mapped schema (paragraph [0043]), the view model includes view data that is mapped to objects of the application (paragraph [0043]);

means for generating a data model from the mapped schema (paragraph [0029]), the data model including data that is mapped to objects of the application (paragraph [0029]); and

means for propagating changes to the data model to contents of a document via a data binding mechanism to view controls (paragraph [0043]).

55.   Fry does not explicitly disclose the view data is not native to the generic application interfaces of the application.

56.   However White teaches the view data is not native to the generic application interfaces of the application (col. 7, lines 9-11 and 15-22).

57.   It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified data binding framework of Fry with the teachings of an adapter layer from White because this feature would have provided a mechanism to map vendor-specific APIs to a standardized API (col. 5, lines 21-25 of White).

58.   **Claims 8-11, 19-20, 23, 30, and 35-36 rejected under 35 U.S.C. 103(a) as**

being unpatentable over Fry et al. (hereinafter Fry) (U.S. Publication No.

2003/0163603 A1) in view of White et al. (hereinafter White) (U.S. Patent 7,370,335

B1), as applied to claims above, and further in view of Evans (U.S. Publication No.

2003/0159030 A1).

59.   As to claim 8, Fry as modified by White teaches the invention substantially as

claimed including a separation component (paragraph [0027]).

60.   Fry as modified by White does not explicitly disclose generates a data island in a

document of a host application.

61.   However Evans teaches generates a data island in a document of a host

application (paragraph [0022]).

62.   It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to have further modified the unmarshaller of Fry as modified by

White with the teachings of unencrypter from Evans because this feature would have

further provided a mechanism to decrypt the data, in the data island, using the same

encryption routine used by the sender, once the data island is decrypted, the data

receiver loads the results into the XML document object model (DOM), and once the

results are in the DOM, the data elements are extracted from the data island using the

appropriate XML document object properties and methods (paragraph [0020] of Evans).

63.   As to claim 9, Fry as modified by White and further modified by Evans teaches

the data island is editable (paragraph [0022] of Evans).

64.   As to claim 10, Fry as modified by White and further modified by Evans teaches

the data island can be at least one of accessed or modified without launching the host

application (paragraph [0022] of Evans).

65.   As to claim 11, Fry as modified by White and further modified by Evans teaches

contents of the data island and contents of the document are synchronized when the

document is run inside the host application via data binding (paragraph [0022] of

Evans).

66.   As to claim 19, Fry as modified by White and further modified by Evans teaches

a separation component (paragraph [0027] of Fry) that generates an editable data

island in a document of the host application (paragraph [0022] of Evans).

67.   As to claim 20, this claim is rejected for the same reasons as claim 11 since

claim 20 recites the same or equivalent invention, see the rejection to claim 11 above.

68.   As to claim 23, this claim is rejected for the same reasons as claim 10 since
claim 23 recites the same or equivalent invention, see the rejection to claim 10 above.

69.   As to claim 30, Fry as modified by White and further modified by Evans teaches
separating data from a view model of the program model (paragraph [0029] of Fry) by,
generating data that conforms to the schema (paragraphs [0029] and [0043] of Fry); and
        saving the data as a data island in a document of the application (paragraph
[0022] of Evans).

70.   As to claim 35, Fry as modified by White and further modified by Evans teaches
the data model is generated by, conforming the data to the schema (paragraphs [0029]
and [0043] of Fry);
        and saving the data as a data island in a document of the application (paragraph
[0022] of Evans).

71.   As to claim 36, Fry as modified by White and further modified by Evans teaches
connecting the data model to the data island (paragraph [0022] of Evans); and
        synchronizing contents of the data island with contents of the document when the
application processes the document (paragraph [0022] of Evans).

Response to Arguments

72.   Applicant's arguments with respect to claims 1-12 and 14-37 have been
considered but are moot in view of the new ground(s) of rejection.

Conclusion

73.   Applicant's amendment necessitated the new ground(s) of rejection presented in
this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP
§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37
CFR 1.136(a).

74.   A shortened statutory period for reply to this final action is set to expire THREE
MONTHS from the mailing date of this action. In the event a first reply is filed within
TWO MONTHS of the mailing date of this final action and the advisory action is not
mailed until after the end of the THREE-MONTH shortened statutory period, then the
shortened statutory period will expire on the date the advisory action is mailed, and any
extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of
the advisory action. In no event, however, will the statutory period for reply expire later
than SIX MONTHS from the date of this final action.

75.   Any inquiry concerning this communication or earlier communications from the
examiner should be directed to KimbleAnn Verdi whose telephone number is (571)270-
1654. The examiner can normally be reached on Monday-Friday 7:30am-5:00pm EST..

76.   If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

77.   Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KV
November 7, 2008

/Li B. Zhen/
Primary Examiner, Art Unit 2194